



GAU 2812  
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TECHNOLOGY CENTER 2800  
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To: Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
  
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Subject: | Serial No. 09/863,223 05/24/01

Chung-Shi Liu, Shau-Lin Shue

PREVENTION OF POST CMP DEFECTS IN  
CU/FSG PROCESS

| Grp. Art Unit: 2812

#### INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation  
In An Application.

The following Patents and/or Publications are submitted to  
comply with the duty of disclosure under CFR 1.97-1.99 and  
37 CFR 1.56. Copies of each document is included herewith.

U.S. Patent 6,008,120 to Lee, "Silicon Oxynitride Cap for  
Fluorinated Silicate Glass Film in Intermetal Dielectric  
Semiconductor Fabrication", teaches use of the oxynitride ARC  
layer as the means for keeping fluoride away from the metal  
used to fill a via.

U.S. Patent 6,103,601 to Lee et al., "Method and Apparatus for Improving Film Stability of Halogen-Doped Silicon Oxide Films", discloses how FSG films can be densified by hydrogen ion bombardment.

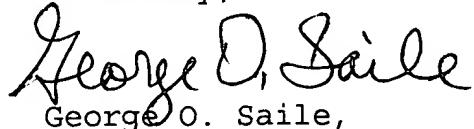
U.S. Patent 6,121,164 to Yieh et al., "Method for Forming Low Compressive Stress Fluorinated Ozone/TEOS Oxide Film", discusses reducing stress in FSG layers.

The following two U.S. Patents disclose methods to form interconnects:

- 1) U.S. Patent 6,130,157 to Liu et al., "Method to Form an Encapsulation Layer Over Copper Interconnects".
  
- 2) U.S. Patent 6,136,680 to Lai et al., "Methods to Improve Copper-Fluorinated Silica Glass Interconnects".

U.S. Patent 6,150,272 to Liu et al., "Method for Making Metal Plug Contacts and Metal Lines in an Insulating Layer by Chemical/Mechanical Polishing that Reduces Polishing-Induced Damage", discloses an organic layer over the FSG layer.

Sincerely,

  
George O. Saile,  
Reg. No. 19572